

REMARKS

Claims 1-41 are now pending in the application. Claims 24-39 have been withdrawn from consideration. Claims 1, 5, 10-11, 16-17, 22-23, and 40-41 have been amended to address mere informalities. The amendments to the claims contained herein are intended to be of equivalent scope as originally filed and, thus, are not narrowing amendments. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

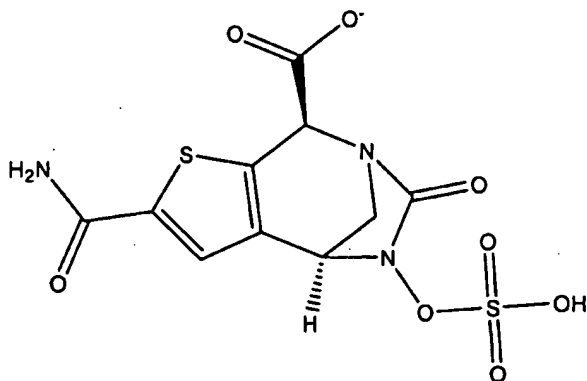
Claims 1-23, 40 and 41 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicants regard as the invention. This rejection is respectfully traversed. As described above, Claims 1, 10-11, 16-17, 22-23, and 40-41 have been amended and Applicants respectfully submit that the claims are in condition for allowance.

Claim 1 has been amended to delete "general" in the preamble (Paragraph (a)); to delete "nucleus of the" aryl or aralkyl radical (Paragraph (b)); to recite $O-CH_2-CH_2-S(O-)_m-R$, where m applies to the $(O-)_m$ repeating group in R_8 (Paragraph (c)); and to add R' species $-(O)_a-(CH_2)_b-(O)_a-R$, and $-(O)_a-(CH_2)_b$ -5- or 6-membered aromatic heterocycle containing from 1 to 4 heteroatoms selected from nitrogen, oxygen and sulfur, such that Claim 9 has sufficient antecedent basis (Paragraph (d)).

Claim 10 has been amended to modify 4H and 1H (Paragraphs (e) and (f)). Further, Claim 10 has been amended to recite the triethylammonium salt of methyl

trans-2,5,6,8-tetrahydro-6-oxo-2-(phenylmethyl)-5-(sulfoxy)-4H-4,7-methanopyrazolo [3,4-e][1,3] diazepine-8-carboxylate to indicate the position of the nitrogen atoms in diazepine (Paragraph (g)).

With regard to the rejection of Claim 10 under Paragraph (h), Applicants believe that the nomenclature of the tenth species is clear to those of skill in the art, in that the 2(aminocarbonyl) group is at the 2-position of the thienyl ring. The structure of the tenth species is:



trans-2(aminocarbonyl)-4,5,6,8-tetrahydro-6-oxo-5-(sulfoxy)-4,7-methano-7-H-thieno[2,3-e][1,3]diazepine-8-carboxylate

Thus, Applicants traverse the rejection set forth in Paragraph (h), as the nomenclature set forth in Claim 10 is definite.

With regard to the rejection of Claim 10 under Paragraph (i), the amendment to Claim 1 described above regarding additional R' species provides sufficient antecedent basis for the twelfth species.

Claim 10 has also been amended to recite the sodium salt of ethyl trans-1,2,3,5-tetrahydro-3-oxo-2-(sulfoxy)-8-[[[(trifluoromethyl)sulfonyl]oxy]-1,4-methano-4H-2,4-benzodiazepine-5-carboxylate. Paragraph (j).

Claim 11 has been amended to clarify that R'' is as defined in Claim 1 to address the Paragraph (k) rejection of Claims 11 – 17. Claim 11 has likewise been amended to

include a reference to n as defined in Claim 1, to obviate the rejection of Claim 16 (Paragraph (l)). Claim 16 has been amended in several locations to recite that A is as defined in Claim 16 and n is as defined in Claim 11 (Paragraphs (m-n)). Formula VI has been amended to include R₁₁, Formula VIII and VIII' have been amended to recite R₃. Paragraphs (o-r).

Claim 17 has been amended to recite that A represents hydrogen or a group protecting nitrogen to address Paragraph (s). Further, n is as defined in Claim 11 and in the formulas set forth in Claim 17. Similarly, Formula VIII has been amended to recite R₃. Paragraphs (s-u).

Claims 22, 23 have been amended to clarify the claimed invention, which now recites a pharmaceutical composition that contains an active ingredient comprising at least one β -lactamase inhibiting agent comprising a compound as defined in Claims 1 and 10, respectively. Similarly, Claims 40 and 41 have been amended to more particularly point out and distinctly claim a method of treating a bacterial infection comprising administering to a mammal in need thereof an effective amount of a β -lactamase inhibiting agent comprising a compound as defined in Claims 1 and 10, respectively. The method also comprises administering an antibacterially effective amount of a beta-lactam medicament agent. Support for these amendments is found throughout the specification as originally filed and at Page 23 line 18 bridging Page 24 line 2. Applicants submit that these amendment overcome the rejection set forth at Paragraph (v). Applicants respectfully submit that the amendments made to Claims 1, 10-11, 16-17, 22-23, and 40-41 overcome the indefiniteness rejections and are presently in condition for allowance.

REJECTION UNDER DOUBLE PATENTING

Applicants note that Claims 1-10, 20 and 21 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-10 and 20 of co-pending U.S. Application Serial No. 10/480,019. Applicants reserve the right to respond to this rejection at the appropriate time, if the rejection should become non-provisional.

CLAIM REJECTIONS – 37 CFR 1.75(c)

Claim 5 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim must be stated in the alternative. This rejection is respectfully traversed.

Claim 5 has been amended to depend solely from Claim 1. In this regard, Applicants respectfully submit that the amendment overcomes the objection and that Claim 5 is presently in condition for allowance.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner

believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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